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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GADDY, BENJAMIN E

ART UNIT

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4181

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,370	Applicant(s) BERG ET AL.	
	Examiner Benjamin E. Gaddy	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/27/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 11, 30, 40, 41, 70, 71, 73, and 100. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Removing unwanted signals from a media signal via comparing a segment of the signal to a later segment."

Claim Objections

2. Claim 5 is objected to because of the following informalities: Claim 5 references the number (73) twice. This appears to be a mistake. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 9, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewine (US 5,668,917 A) in view of Reese (US 4602297 A).

Consider claim 1: Lewine discloses receiving media signals through receiving means (**see Col. 4, lines 25-31, where Lewine discusses a converter box**), said media signals containing unwanted signal components (**see Col. 4, lines 20-24, where Lewine discusses unwanted video information**); to choose a representation for said media signals and to process these media signals in such a way that said unwanted signal components are essentially removed and the remaining signal components are saved (**see Col. 6, lines 39-42, where Lewine discusses detecting and eliminating and Col. 6, lines 15-20, where Lewine discusses storing**) , said method comprising the steps of: from the media signals choose a first search key representation (**see Col. 5, lines 40-45, where Lewine discusses a search process**); in a search track conduct a first search after determining a signal representation that contains a section which is

essentially identical with said first search key representation (**see Col. 5, lines 50-55, where Lewine discusses looking for a matching frame**); compare a first segment, which lies before and after said search key, with a second segment which lies before and after said section which is essentially identical with the first search key representation (**see Col. 5, lines 50-55, where Lewine discusses matching additional sequential frames**); from said first segment and said second segment find a first common segment (**see Col. 5, lines 50-60, where Lewine discusses enough frames match**); loading said common segment into a memory domain (**see Col. 5, lines 55-60, where Lewine discusses saving**) ; and storing said segment in said memory domain without unwanted components (**see Col. 6, lines 10-15, where Lewine discusses passing to the decompression unit**).

Lewine does not specifically disclose storing a segment as a signal representation without unwanted signal components, however Reese discloses storing a segment as a signal representation without unwanted signal components (**see Col. 2, lines 22-25, where Reese discusses the program is recorded**). It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Lewine, and use storing a segment as a signal representation without unwanted signal components as taught by Reese, thus preventing the recording of commercial messages, as discussed by Reese (**see Col. 1, lines 31-36**).

Consider claim 11: Lewine discloses receiving media signals through receiving means (**see Col. 4, lines 25-31, where Lewine discusses a converter box**), said media signals containing unwanted signal components (**see Col. 4, lines 20-24, where Lewine discusses unwanted video information**); to chose a representation for said media signals and to process the these media signals in such a way that said unwanted signal components are essentially removed and

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the remaining signal components are saved (**see Col. 5, lines 55-60, where Lewine discusses saving**), said method comprising the steps of: from the media signals choosing a search key representation (**see Col. 5, lines 40-45, where Lewine discusses a search process**); in a search track conducting a first search after a signal representation that contains a section which is essentially identical with said search key (**see Col. 5, lines 50-55, where Lewine discusses looking for a matching frame**); comparing a first segment, which lies before and after said search key, with a second segment which lies before and after said section, which is essentially identical with the first search key (**see Col. 5, lines 50-55, where Lewine discusses matching additional sequential frames**); from said first segment and said second segment finding a first common segment (**see Col. 5, lines 50-60, where Lewine discusses enough frames match**); and removing said final common segment from the search track (**see Col. 6, lines 10-15, where Lewine discusses passing to the decompression unit**).

Lewine does not specifically disclose removing said final common segment from the search track when it appears in the search track, however Reese discloses removing said final common segment from the search track when it appears in the search track (**see Col. 2, lines 35-42, where Reese discusses the commercial is prevented from recording**). It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Lewine, and use removing said final common segment from the search track when it appears in the search track as taught by Reese, thus preventing the recording of commercial messages, as discussed by Reese (**see Col. 1, lines 31-36**).

Consider claims 2 and 12: Lewine discloses a first search is conducted among media signal representations stored in the memory domain **(see Col. 5, lines 30-37, where Lewine discusses memory)**.

Consider claim 3: Lewine discloses if no essentially identical copy of the search key representation was found, carrying out the further step of conducting further searches in the search track to locate essentially identical copies of said search key representations and when such a copy is found conducting a comparison process to find common segments, and continuing this process until a final common segment is achieved or until the process is terminated, and then loading said common segment into the memory domain as a signal representation **(see Col. 6, lines 10-15, where Lewine discusses the patterns are not close enough)**.

Consider claim 4: Lewine discloses removing all redundant signal representations from the search track if the search track contains a multiple of essentially identical signal representations, to thereby achieve a better use of the memory capacity **(see Col. 6, lines 38-43, where Lewine discusses eliminating multiple occurrences)**.

Consider claim 5: Lewine and Reese disclose a signal representation that lies between two signal representations contained in the memory domain is removed if said signal representation has a time duration that is shorter than a predetermined threshold value **(see Col. 2, lines 1-14, where Reese discusses a time interval)**.

Consider claim 6: Lewine and Reese disclose a section of a signal representation that lies between two signal representations contained in the memory domain is saved if the setting of

the search key was activated during this section (**see Col. 2, lines 15-25, where Reese discusses the program following the break is recorded**).

Consider claims 7 and 13: Lewine and Reese disclose a search track consists of every N:th sample of a signal representation (**see Col. 4, lines 40-45, where Lewine discusses analog to digital conversion, therefore sampling**).

Consider claims 9 and 14: Lewine and Reese disclose the signal representations are selected from one or more of the group consisting of representations of music, talk, noise, jingles of and logotypes (**see Col. 3, lines 26-33, where Lewine discusses radio, therefore music, talk, or noise**).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewine (US 5,668,917 A) in view of Reese (US 4602297 A) as applied to claim 1 above, and further in view of Iggulden (US 5,696,866 A).

Consider claim 8: Lewine and Reese disclose the search tracks, when recorded, are normalized.

Lewine and Reese does not specifically disclose normalizing to have a common amplitude, however Iggulden discloses normalizing to have a common amplitude (**see Col. 6, lines 1-10, where Iggulden discusses nomalizing**). It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Lewine and Reese, and use normalizing to have a common amplitude as taught by Iggulden, thus conditioning and filtering the input to allow comparison, as discussed by Iggulden (**see Col. 6, lines 18-20**).

6. Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewine (US 5,668,917 A) in view of Reese (US 4602297 A) as applied to claims 1 and 11 above, and further in view of Iggulden (US 5,987,210 A).

Consider claims 10 and 15: Lewine and Reese disclose signal representations are one or more representations selected from the group consisting of music and video (**see Col. 4, lines 20-24, where Lewine discusses video**).

Lewine and Reese do not specifically disclose movies, however Iggulden discloses movies (**see Col. 18, lines 56-67, where Iggulden discusses movies**). It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Lewine and Reese, and use movies as taught by Iggulden, thus allowing the removal of trailers and commercials, as discussed by Iggulden (**see Col. 18, lines 57-60**).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E. Gaddy whose telephone number is (571) 270-5134. The examiner can normally be reached on M-TH 9am - 4pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin E. Gaddy
/Benjamin E Gaddy/
Examiner, Art Unit 4181

/Nick Corsaro/
Supervisory Patent Examiner, Art Unit 4181